

TfNSW WARRANTS

TfNSW outline 4 possible situations in which a zebra crossing may be installed, as follows:

i) Normal Warrant:

A pedestrian (Zebra) Crossing is warranted where:

In each of three separate one hour periods in a typical day

(a) The pedestrian flow per hour (P) crossing the road is greater than or equal to 30

AND

a) The vehicular flow per hour (V) through the site is greater than or equal to 500

AND

b) The product PV is greater than or equal to 60,000

NOTE: if the vehicle count is $V = 500$ cars per hour and $P \times V = 60,000$ then you need a minimum pedestrian count of $P = 120$ pedestrians per hour (i.e. $500 \text{ cars / hour} \times 120 \text{ pedestrians / hour} = 60,000$)

ii) Reduced Warrant #1

Reduced Warrant for sites used predominantly by children and by aged or impaired pedestrians:

If the crossing is used predominately by school children, is not suitable site for a Children's Crossing and in two counts of one hour duration immediately before and after school hours:

(a) $P \geq 30$

AND

(b) $V \geq 200$

a pedestrian (Zebra) Crossing may be installed.

NOTE: This crossing is not used predominately by school children as pedestrian counts remain consistent throughout the day and did not peak during school morning and afternoon periods. Therefore, these warrants do not apply.

iii) Reduced Warrant #2

If at least 50% of pedestrians using the crossing are aged or impaired and for each three one hour periods in a typical day

(a) $P \geq 30$

AND

(b) $V \geq 200$

AND

(c) $PV \geq 60,000$

a pedestrian (Zebra) Crossing may be installed.

iv) Special Warrant:

In certain circumstances where:

(a) $PV \geq 45,000$ but less than (60,000)

AND

(b) $P \geq 30$

AND

(c) $V \geq 500$

then consideration may be given to a potential pedestrian crossing site. In such circumstances, Transport must be satisfied with the additional reasons for why the location is in need of special consideration. Local traffic advice may be sought from council.

DATA TABLES

The table below present the pedestrian counts (P), vehicle counts (V) and PxV results for Clifford St. As seen in the table the PxV results are well below the minimum required. In addition, the Vehicle Counts are well below 500 per hour for the Special Warrants.

TIME	VEHICLES / HR (V)			PEDESTRIANS / HR (BROKEN HEAD RD) (P)				PxV			
	EAST	WEST	COMBINED	FRIDAY	SATURDAY	TUESDAY	WEDNESDAY	FRIDAY	SATURDAY	TUESDAY	WEDNESDAY
6	71	117	188	11	20	36	28	2,068	3,760	6,768	5,264
7	131	197	328	52	31	33	49	17,056	10,168	10,824	16,072
8	188	283	471	49	51	43	32	23,079	24,021	20,253	15,072
9	209	247	456	31	51	44	53	14,136	23,256	20,064	24,168
10	194	205	399	41	50	30	26	16,359	19,950	11,970	10,374
11	211	196	407	41	42	25	53	16,687	17,094	10,175	21,571
12	204	175	379	52	44	37	41	19,708	16,676	14,023	15,539
13	212	171	383	42	58	26	49	16,086	22,214	9,958	18,767
14	222	187	409	34	44	38	33	13,906	17,996	15,542	13,497
15	265	198	463	42	42	63	42	19,446	19,446	29,169	19,446
16	286	198	484	34	49	52	51	16,456	23,716	25,168	24,684
17	256	171	427	51	43	56	40	21,777	18,361	23,912	17,080

The table below present the pedestrian counts (P), vehicle counts (V) and PxV results for Broken Head Road. As seen in the table the pedestrian counts and PxV throughout the day are well below the minimum required:

TIME	VEHICLES / HR (V)			PEDESTRIANS / HR (BROKEN HEAD RD) (P)				PxV			
	SOUTH	NORTH	COMBINED	FRIDAY	SATURDAY	TUESDAY	WEDNESDAY	FRIDAY	SATURDAY	TUESDAY	WEDNESDAY
6	106	67	173	1	0	2	4	173	0	346	692
7	262	186	448	1	3	4	2	448	1,344	1,792	896
8	410	310	720	3	5	2	2	2,160	3,600	1,440	1,440
9	507	393	900	1	3	8	4	900	2,700	7,200	3,600

10	536	438	974	7	0	5	8	6,818	0	4,870	7,792
11	525	468	993	2	2	4	2	1,986	1,986	3,972	1,986
12	501	492	993	3	2	4	5	2,979	1,986	3,972	4,965
13	498	488	986	3	1	1	5	2,958	986	986	4,930
14	474	492	966	1	0	5	3	966	0	4,830	2,898
15	471	498	969	2	5	2	2	1,938	4,845	1,938	1,938
16	483	523	1006	3	6	3	6	3,018	6,036	3,018	6,036
17	483	526	1009	1	0	1	5	1,009	0	1,009	5,045

The email asked what impact Covid could have had on traffic counts. Between 1st November – 14 November 2019 Council did a traffic count 1km south of Clifford St. All traffic passing through this location would be very similar to the above Broken Head Rd traffic count.

As seen in the table the 2021 counts are noticeably higher than the 2019 counts. It is also noted the Covid restrictions in Byron occurred between 31st March to 5th April. The impacts of Covid do not appear to have reduced the 2021 traffic counts.

TIME	VEHICLES / HR			PEDESTRIANS / HR (BROKEN HEAD RD)				PxV			
	SOUTH	NORTH	COMBINED	FRIDAY	SATURDAY	TUESDAY	WEDNESDAY	FRIDAY	SATURDAY	TUESDAY	WEDNESDAY
6	146	154	300	1	0	2	4	300	0	600	1,200
7	217	220	437	1	3	4	2	437	1,311	1,748	874
8	289	338	627	3	5	2	2	1,881	3,135	1,254	1,254
9	300	303	603	1	3	8	4	603	1,809	4,824	2,412
10	293	294	587	7	0	5	8	4,109	0	2,935	4,696
11	307	303	610	2	2	4	2	1,220	1,220	2,440	1,220
12	293	296	589	3	2	4	5	1,767	1,178	2,356	2,945
13	286	297	583	3	1	1	5	1,749	583	583	2,915
14	294	288	582	1	0	5	3	582	0	2,910	1,746
15	334	310	644	2	5	2	2	1,288	3,220	1,288	1,288
16	309	319	628	3	6	3	6	1,884	3,768	1,884	3,768

17	278	293	571	1	0	1	5	571	0	571	2,855
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PEDESTRAIN COUNTS

The pedestrian counts were done on 2 separate occasions. The first occasion overlapped with the traffic counts and coincided with school holidays. To make sure we captured the highest number of pedestrians another count was done during school term. Doing the counts both in holidays and during school term aimed to make sure we check both conditions.